

# Maximizing carbide grinding productivity

## Situation

A Midwest US carbide tool manufacturer was having production issues with a mineral oil-based (group II) grinding fluid. When they challenged the oil with heavy grinding, the process would generate dense smoke and oil mist. To avoid these issues, they had to reduce the grind depth by 36% which increased production time significantly.

## Solution

Castrol® proposed Product ML 0001, an advanced synthetic grinding oil with inhibitors tailored for carbide grinding. This oil is designed specifically for heavy duty grinding operations mineral oils are unable to achieve and also prevents cobalt leaching from carbide. It can extend sump life by 2 times or more, while the low volatility reduces mist and overall fluid usage.

## Outcome

Following an extended trial period, no smoke was generated while utilizing the original aggressive grind depth. The manufacturer was able to achieve maximum productivity levels while also reducing mist and improving operator acceptance.



## Savings

- Achieved high production goals
- Avoided investment in additional machine (cost savings \$250,000)
- Eliminated smoke and reduced mist for operator acceptance
- Improved safety with high flash point